



Streambox® SBT3-5100 Video Transport  
Streambox® SBT3-7100 Video Transport



## Plug-and-Connect Real-Time Video Transport

The Streambox® SBT3-5100 and SBT3-7100 Video Transport solutions are true 24/7 plug-and-connect real-time video transport solutions that deliver stunning full-motion, full frame interlaced broadcast video and audio over satellite and IP-based networks. Streambox® ACT-L3™ encoders excel over low bandwidth connections while providing unrivaled video compression and quality.

Streambox® ACT-L3™ Video Transport solutions have been specifically developed to meet the performance, compression, and quality requirements of broadcasters, government agencies, and enterprises. Our products are highly reliable and flexible, making them the video transport solution of choice for customers around the world.

### Solution Overview

The SBT3-5100 and SBT3-7100 Video Transport solutions provide best-of-class performance and reliability due to their unrivaled video compression and error correction technologies. The systems also enable broadcasters and cable operators to leverage the store and forward option which provides enhanced storage, management, and transmission of video over packet-based networks.

The SBT3-5100 solution is our primary broadcast video transport system. The SBT3-7100 includes the same features as the SBT3-5100 plus:

- Dual networking for Ethernet or T1/E1
- Multi-channel audio with up to six channels of embedded SDI

### Streambox® ACT-L3™ Codec

The ACT-L3™ Codec features an advanced proprietary video compression technology optimized for interlaced display systems. ACT-L3™ matches MPEG-2 video quality up to a 75% lower data rate and it is up to 50% more efficient than MPEG-4. The ACT-L3™ Codec is adaptable to differing data rate requirements with constant bit rate and variable bit rate modes.

The robust family of ACT-L3™ Video Transport solutions features innovative error correction technologies and bandwidth shaping technologies which enable users to manage, control, and mitigate packet loss and correct irregularities inherent in video delivery over satellite and IP/T1/E1 networks.

### Solution Reliability

The SBT3-5100 and SBT3-7100 solutions are designed for 24/7 unattended use. Features include:

- Video and audio signal re-connect upon signal loss
- Encoder/decoder restart in case of video/audio irregularities, large packet loss or extended signal loss.
- Immediate system restore, upon power outage or system reset

### Solution Features

- Unrivaled video compression and quality at low data rates
- 4:2:0 and 4:2:2 color profiles
- Best-of-class performance and reliability with advanced networking features
- Advanced forward error correction and burst error protection.
- Low end-to-end latency. Provides adjustable latency for video conferencing or broadcasting

### Target Markets and Applications

- Backhaul video transport
- Digital newsgathering
- Satellite video transport
- Video conferencing
- Point-to-point and point-to-multipoint video distribution
- Law enforcement
- Surveillance and security
- Centralcast television
- Telemedicine
- Online and distance learning

### Solution Package and Options

- ACT-L3™ Encoder(s) and Decoder(s)
- Streambox® Broadcast Server
- Streambox® Distribution Server
- ACT-L3™ Full Duplex
- Streambox® Store and Forward and Playout™
- Cost-effective newsgathering and video conferencing
- Seamless local or remote system management
- Optional store and forward feature for enhanced storage, management, and transmission of video over packet-based networks
- Dual networking for Ethernet or T1/E1 (SBT3-7100 only)
- Multi-channel audio with six channels of embedded SDI (SBT3-7100 only)
- Half duplex mode (encoder only) is provided for easy switching between encoder and decoder modes
- User configurable presets for quick and flexible setup

## Technical Specifications

|                              |   |
|------------------------------|---|
| Video Formats:               | NTSC/60i, PAL/50i   |
| Video Encoding:              | Resolution: D1, 3/4, 2/3, 1/2, CIF, QVGA<br>Frame rate: full, 3/4, 1/2, 1/3, 1/4, 1/5, 1/10                                     |
| Audio Codecs:                | AAC, GSM, and CELP<br>Up to 128 Kbps per channel<br>44.1 or 48 KHz sampling rate  |
| Streaming Rate:              | User selectable from 64 kbps to 8 Mbps<br>Single TI at 1.5 Mbps, dual TI at 3 Mbps<br>Single EI at 2 Mbps, dual EI at 4 Mbps    |
| Audio Inputs:                | 2-ch SDI (5100), 6-ch SDI (7100),<br>2-ch AES, 2-ch Analog XLR  |
| Audio Outputs:               | 2-ch SDI (5100), 6-ch SDI (7100),<br>2-ch AES, 2-ch Analog XLR  |
| Closed Caption:              | Line 21 encoding, transmission, and<br>decoding   |
| Video System:                | D/A and A/D. Time-Base Correction for<br>analog video. Genlock. Audio embedding/<br>de-embedding                                |
| Video Inputs:                | Composite, SDI (SMPTE-259M), Genlock  |
| Video Outputs:               | Composite, SDI (SMPTE-259M), Genlock  |
| Encoding Latency:            | Adjustable from 200 ms to 10 seconds  |
| Video Post Filtering:        | Advanced interlaced/progressive post<br>filtering, including de-blocking,<br>de-mosquito, and anti-aliasing                     |
| Video Pre-filtering:         | Noise pre-filter, adjustable de-interlacing   |
| Network Interfaces:          | Ethernet, optional TI/EI or ASI   |
| Network Protocol:            | HDLC for TI/EI, multicast/unicast UDP<br>for IP, ASI  |
| Setup & Control:             | Front access LCD panel and keypad. Solid-<br>state Compact Flash storage for reliability<br>and upgrades. VGA output, USB ports |
| Forward Error<br>Correction: | Adjustable, Off or On from 1% to 50%<br>Reed-Solomon, Parity, Shuffle   |
| Options:                     | Store and Forward, ASI interface, TI/EI<br>interface  |
| Dimensions:                  | 2 RU 3.5"H x 16.75"W x 16.25"D<br>8.9cm H x 42.5cm W x 41.3cm D   |
| Weight:                      | 25 lbs, 11.3 kg   |

## About Streambox, Inc.

Streambox manufactures a complete line of video transport and newsgathering solutions used by broadcasters, government agencies, and enterprises worldwide.

We provide best-of-class encoding, decoding, and transmission over IP and satellite networks for all real-time and store and forward applications.

Learn more about our products and solutions at [www.streambox.com](http://www.streambox.com).

## Customers Include:

AOL  
American Red Cross  
Bell Canada  
BELO  
British Sky Broadcasting  
CBS  
CNN  
Comcast  
Department of Homeland Security  
DIRECTV  
Gannett  
Japan Leisure Channel  
Media General  
MBC Korea  
NASA  
NBC Universal  
NOAA  
PCCW  
PBS  
Time Warner  
Tribune  
Turner Broadcasting  
Univision

